

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street San Francisco, Ca. 94105-3901

Received DOE Grand Jct. Proj. Office

DEC 0 5 1991

December 2, 1991

MEMORANDUM

SUBJECT: Final Report by Cerrillos Land Company, Clean-up

Action on Section 19, T13N, R10W of McKinley County.

FROM:

Robert Bornstein

Federal On-Scene-Coordinator

TO:

Bill Nelson, ATSDR (for distribution among ATSDR)

Ray Churan, DOI (for distribution among DOI agencies)

Stan Edison, Navajo Superfund (for distribution)

Linda Wandres, ORC

Bob Ivey, DOE

Enclosed is a copy of the post-removal report by Cerrillos Land Company. The report was submitted to EPA pursuant to EPA Order 91-16. If you need a copy of the post removal contour map please request a copy from Mr. Paul Eby of Cerrillos Land Company at 505-880-5300. Their post removal survey indicates that the site's gamma radiation levels have been significantly reduced to below 71 uR/hr (50 uR/hr divided by their instrument conversion factor of .7). Overall, within the reclamated areas, the section is reading approximately 28 uR/hr.

If you have any questions regarding this report, please contact me at 415-744-2298.

Printed on Recycled Paper

Cerrillos Land Company

6200 Uptown Blvd. N.E., Suite 400 Albuquerque, New Mexico 87110 Box 27019 Albuquerque, New Mexico 87125 505/880-5300 Fax# 505/880-5435

November 27, 1991

United States Environmental Protection Agency Region 1X 75 Hawthorne Street San Francisco, CA 94105

ATTENTION:

Mr. Robert Bornstein On-Scene Coordinator

Emergency Response Section (H-8-3)

RE:

Post Response Report

EPA Order 91-16

Dear Mr. Bornstein:

I am submitting for your approval the Post Response Report detailing response action taken on EPA Order 91-16. Also attached are the Affidavit, Pre-Response Survey, Post-Response Survey and related field documentation.

I want to thank you again for the guidance and cooperation you have provided during this project.

Should you require additional information, please contact me at this office.

Sincerely,

Paul G. Eby

Director - Field Operations

PGE/ps

cc: Tim Leftwich, w/Attachments
Wayne Jarke, w/Attachments
Denny Cole, w/Attachments

Project File, w/Attachments

Attachments

A Bente Fe Pacific Company

Cerrillos Land Company

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POST RESPONSE REPORT EPA ORDER 91-16

Receipt of Order

On August 5, 1991, Cerrillos Land Company received EPA Order 91-16. This order designated Cerrillos as a potentially responsible party for elevated gamma radiation from uranium subore grade mine waste and large shallow open pits located in the NW 1/4, Section 19, Township 13N, Range 10W of McKinley County, New Mexico, where Cerrillos retains ownership of the mineral rights. The basis of this order was for Cerrillos to reduce the potentially hazardous gamma emissions from the site to a level acceptable to all agencies concerned (165 uR/hr above background or to a total of 180 uR/hr) in order to remediate potential health risk to families living nearby.

Acceptance of Order

As provided for in the order, Cerrillos Land Company requested a conference with EPA representatives in order to determine the exact nature of the order, for legal clarification and for guidelines on how to proceed. This accomplished, Cerrillos accepted the order on August 28, 1991, and proceeded with compliance.

Submittal of Site Work Plan - Health and Safety Plan

On August 28, 1991, a final Site Work Plan and Site Health and Safety Plan, detailing actions necessary to comply with the order, were submitted for approval. Included with the Work Plan was the pre-response gamma survey map, statement of qualifications for the contractor selected and statement of

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qualifications for the on-site coordinator. Approval of these Plans was received on September 4, 1991.

Cerrillos Personnel

Cerrillos personnel assigned the responsibility to comply with the order, their titles, and areas of responsibility are as follows:

PAUL G. EBY - DIRECTOR, FIELD OPERATIONS

Project Manager responsible for contractor selection and all physical work done at the site. Responsible for compliance with the Work Plan and Health and Safety Plan.

TIM LEFTWICH - DIRECTOR, ENVIRONMENTAL QUALITY Contact for regulatory agencies. Provided consultation for scope and direction of all phases of project. Direct oversight responsibility for environmental and health issues relative to project.

BILL HARRISON - PROJECT ON-SITE COORDINATOR

On-site responsibility for compliance with Work Plan and Health and Safety Plan. On-site responsibility for coordination of reading gamma emissions of materials being moved and carrying out instructions from Project Manager. Controlled access to site and scanned personnel leaving site.

- TONY J. CANABA FIELD OPERATIONS GRADE CONTROL Provided gamma readings to contractor.
- MARK GRAY FIELD TECHNICIAN GRADE CONTROL Provided gamma readings to contractor.

Contractor Personnel and Equipment

Taylor Services of Grants, New Mexico, was the contractor selected by Cerrillos for site stabilization work. They have provided excellent, responsive and cost effective work on a very complex project. Key personnel are listed below:

Larry Taylor - Owner - Superintendent

Tony Canaba - Foreman - Operator

Dale Rowe - Operator

Paul Rowe - Operator

Mike McGinn - Operator

Rudy Purilla - Operator

Richard Grey - Operator

Raul Zapata - Driver

Multiple - Laborers

The primary equipment provided by Taylor Services for this project was either new or substantially equivalent to new. All equipment listed below was not run continuously, but on an asneeded basis.

- 3 D-8 size Bulldozers
- 1 D-6 size Bulldozer
- 1 Front-End Loader (6 yd.)
- 1 Road Grader
- 1 End-Dump Truck
- 3 Belly-Dump Trucks (Sub-contract)
- 1 Office Trailer Lunchroom

Contractor compliance with the Health and Safety Plan was excellent. Primary equipment had pressurized cabs and all equipment had back-up horns. Personnel wore hard hats, safety shoes or boots, safety glasses, radiation badges, and

respirators when required. All Taylor and Cerrillos personnel were scanned for radiation before leaving the site.

Site Stabilization

Upon acceptance of EPA Order 91-16, Cerrillos was determined to reduce gamma radiation at the site to the lowest practical level below the required 180 uR/hr while using on-site fill and cover material. The initial gamma survey that was included with the Work Plan outlined an area of approximately 80 acres that would require either cut, fill, level, cover, transport, or some combination of these operations.

Earth moving operations began on September 4, 1991, on schedule. Initial operations began slowly with the use of one large bulldozer and one large front-end loader to allow Cerrillos' Project Manager and contractor to formulate a detailed equipment schedule and plan of operations. It was determined that each of the dozens of waste piles presented its own individual problems and that no real pattern existed. As the area had been mined by several companies, each waste pile must have been moved more than once and some, several times.

The resulting plan was to first level the pit floors to allow equipment access and to then fill the pits with the highest reading material on-site. Waste piles would be stripped, segmented and pushed in order to separate the "hotter" material from the lower reading material that would be used for cover or top dressing. Depending upon the proximity to a pit, this "hotter" material would be pushed, loaded and hauled, or leveled in place. All areas of higher readings would then be contoured and covered with lower reading or neutral material that would be transported by truck, if necessary. Grade Control Technicians on the ground would coordinate all machine operations.

During the second and third weeks of September, several more pieces of machinery were added and the project schedule accelerated to the maximum manageable level. Work proceeded, as planned, with only minor deviations. Some material had to be moved or covered two or more times to achieve acceptable readings. Mass effect in a larger area such as this proved difficult. Also, every effort was made to save as many Juniper and Piñon trees as possible. By mid-November, all areas were covered, contoured and made ready for the post-response survey and subsequent seeding.

Post Response Survey

The post-response radiometric survey over the property was performed by first laying out a 250' x 250' control grid over the area of disturbance. This was done with the use of a Brunton compass, tripod and a 300' tape. At that point, each 250' grid was internally divided into a 50' grid, again utilizing the 300' tape and setting pin flags at all points. Four Ludlum model 19 instruments, each calibrated against its own check source, were then used for the survey. performed using a measuring line and four men, each with an instrument held at a height of one meter above the ground and walking on 12 1/2' centers on east-west lines to cover the entire property. At 50' intervals, the highest reading from each instrument for that line was recorded on a chart. then provided five line readings for 50' grid, the highest of which was then recorded on the grid map provided as the final post-response survey.

The 500' \times 500' grid sections on this map are numbered to correspond with the pre-response survey map submitted previously. Copies of each are submitted with this report. For your further edification, we are submitting the 500' \times 500' grid charts showing line readings for each of the 50' \times 50' grids.

All readings are below 50 uR/hr, uncorrected, which was Cerrillos' target level for the project.

Seeding Operations

Following the post response survey, seeding operations were delayed due to rain and snow. After the weather cleared and the ground dried sufficiently, seeding began on November 24th. Target date for completion is December 3rd.

Seed selection for the site included two warm season grasses, two cool season grasses and one forb. All are native to the area, are palatable to livestock, and demonstrate vigorous growth potential. Seed was blended for planting as follows:

Species		Rate P	LS/ACRE
Blue Gramma	Hachita	2	
Sideoats Gramma	El Reno		
Indian Ricegrass	Paloma		
Western Wheatgrass	Arriba		
Fourwing Saltbrush	N.M. Origin	2	
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Signs and Posting

Ten signs identical to EPA postings were acquired from Sign Art of New Mexico. All hazard warnings are in English, Navajo and Spanish. Posts were acquired from Unistrut and were 1 3/4" x 1 3/4" x 8'. Each sign was fitted with two posts and bolted with six carriage bolts each. Posts were set in cement two feet in the ground and were posted throughout the site opposite all access points.

Project Cost

Approximate expenditures on the project for all direct charged costs are as follows:

Title Work	\$ 5,188
Ground Survey	7,142
Aerial Survey & Mapping	3,690
Instruments	5,515
On-Site Coordinator & Technician	17,670
Dirt Contractor	175,305
Seed	5,822
Miscellaneous	2,383
DIRECT PROJECT COST	\$222,715

Conclusion of Report

Affidavit attached.

<u>Affidavit</u>

I, Paul G. Eby, being duly sworn and having direct knowledge of the following matters, do certify under penalty of law that based on my personal knowledge and appropriate inquiries of all other persons involved in the preparation of the report to which this affidavit is appended, the information submitted is true, accurate, and complete to the best of my knowledge and belief.

Dated Nov. 26, 1991

Paul G. Eby

STATE OF NEW MEXICO) ss. COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 26th day of November, 1991, by Paul G. Eby, the Director - Field Operations of Cerrillos Land Company, a Delaware corporation, on behalf of said corporation.

Notary Public

My commission expires:

September 20, 1994

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